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Differences In Special Care In Children & Adolescents With Rheumatic Disease

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Adolescence is the period between childhood and adulthood when major biological and psychosocial development occurs.

During childhood, toddlers are initially wholly dependent on their parents to meet their everyday needs, such as washing, dressing, and feeding.

As the child grows, so the parental role needs to put up these changes.

Puberty results in skeletal growth, maturation, and the development of secondary sex characteristics.

Teenagers are extremely sensitive to the opinions of their peers and will often compare themselves with others.

Even the perception, real or otherwise, of under development, obesity, or acne can lead to feelings of inferiority, low esteem, and loss of confidence.

Awareness of self and body image, as well as a concept of sexuality, becomes important.

Seeking friends and sexual relationships, plans for the future, and career choices need to be made.

There is an increasing need for independence and a separate identity from the parents.

Adolescents with chronic illness and disability may be more dependent on their parents for support.

They may also feel overprotected, sheltered, and unable to make their own decisions.

They may sense a general lack of control in their lives as they struggle to seek their own independence.

Self consciousness about physical appearance often leads to withdrawal and an inability to socialize.

Transition from dependence to independence can be a difficult process for teenagers.

Frequent admissions to hospital contribute to social isolation and loneliness.

- There are several factors that contribute to poor adherence to treatment in children and adolescents with chronic rheumatic diseases, worsening their quality of life and prognosis.

Poor adherence is characterized as intentional when the patient decides not to follow the guidelines because:

- He is asymptomatic
- He does not understand the need for treatment
- The use of medications interferes with his quality of life.

Juvenile Idiopathic Arthritis

Although there are conditions that are exclusive to the young, most rheumatic diseases form part of a continuum with those seen in adulthood.

The pattern of arthritis can sometimes be predicted, depending on the age and sex of the patient.

OLIGOARTICULAR ARTHRITIS

Oligo-articular onset arthritis is essentially a disease of childhood, mostly affecting young girls.

The peak age of onset is between 1 and 3 years of age, but it can present in adolescence.

The most commonly affected joints are the knees and ankles and symptoms are often mild.

Antinuclear antibodies are found in 40–75% of children with oligo-articular disease and their presence is strongly associated with anterior uveitis, which needs to be screened for.

The prognosis of this form of arthritis is good.

POLYARTICULAR DISEASE

In polyarticular disease, approximately 10% of cases are IgM rheumatoid factor positive and are associated with HLA-DR4.

The disease is clinically identical to adult rheumatoid arthritis, affects predominantly girls from the age of 10 years, and is characterized by symmetrical erosive small joint polyarthrititis with nodule formation correlating with sero positivity.

Destruction of large joints, especially hips and knees, can occur early in some.

Disease activity usually persists into adulthood and patients are likely to have multiple joint replacements.

SYSTEMIC ONSET ARTHRITIS

Systemic onset juvenile chronic arthritis occurs infrequently in adolescence and affects both sexes equally.

The disease is characterized by typical spiking fevers, an evanescent rash, lymphadenopathy, hepato-splenomegaly, and a polyserositis.

Arthritis may not be a feature at presentation and can sometimes develop months after the onset of systemic symptoms.

Occasionally a progressive destructive arthritis can occur.

The important consequence of SoJIA, particularly in young girls concerned about their appearance and body image, is that they may not comply with medication, resulting in failure to control disease activity.

Contrary to common belief that children grow out of their arthritis with little deformity, several studies have shown that at 10 years, between 9% and 48% of patients have severe functional limitation and approximately 50% have active disease as they enter adult life.

young children with arthritis may become better adjusted adolescents.

Delayed puberty and coexisting growth retardation may make adolescents with arthritis appear younger than they are, which can lead to further embarrassment about being treated as a child.

Anxiety and depression feature highly in adolescents with JIA.

Short stature and restricted mobility are considered key risk factors in psychological morbidity.

ANKYLOSING SPONDYLITIS

Juvenile onset ankylosing spondylitis usually presents in adolescence and more commonly affects boys.

Their symptoms may first present in childhood with a large joint arthritis, frequently affecting the lower limb such that the condition may be misdiagnosed as oligo-articular JIA.

Axial disease and sacroiliitis may develop as late as 5–10 years after the onset of symptoms.

The presence of an enthesitis increases the possibility of an HLA B27 associated disorder, as does a family history of spondyloarthropathy and attacks of acute uveitis.

JUVENILE PSORIATIC ARTHRITIS

In patients with juvenile psoriatic arthritis, the typical rash may not be present.

In such cases the presence of dactylitis, nail changes, or a family history of psoriasis may aid in making the diagnosis.

A small percentage of children develop enthesitis, sacroiliitis, and back pain, and the incidence of HLA B27 is only slightly increased.

The disease may have a oligo-articular onset in children, and then develop into an asymmetrical destructive polyarthrititis in adolescence.

It is important to consider aggressive treatment early before irreversible joint damage occurs.

Inflammatory connective tissue diseases

Approximately 15-20% of all cases of systemic lupus erythematosus (SLE) occur before the age of 18 years.

Boys tend to be more commonly affected before the onset of puberty.

Neuropsychiatric symptoms and headaches are common in cerebral lupus.

Patients may present with affective disorders, mood swings, or cognitive impairment.

Non-inflammatory rheumatic disease

Non-inflammatory musculoskeletal problems are a common reason for referral in adolescence.

In those who present with back pain, postural problems and hypermobility are the most likely underlying causes.

Scheuermann's osteochondritis can cause a thoracic kyphosis.

The pain is usually aggravated by activity and relieved by rest and can be on *x* ray by anterior wedging by more than 5° of three or more adjacent vertebrae in the thoracic spine.

There may be a compensatory lumbar lordosis.

Symptoms usually settle with postural exercises, and surgical correction is rarely indicated.

‘Growing pains’ (nocturnal limb pain) are frequent and occur in approximately 10–20% of young adolescents.

The pain is usually crampy, localised to the lower limbs, occurs in the evening, and can often wake the patient at night.

It is, however, never associated with a limp and treatment is symptomatic.

Sports injuries are more frequent in adolescence. For example, boys who play football are more likely to get groin strain and knee and ankle injuries.

Chondromalacia patellae usually affects women and is a malalignment disorder of the patello-femoral apparatus.

Osgood-Schlatter disease is more common in boys and is due to osteochondritis of the tibial tuberosity.

Pain and swelling usually occurs around the tibial tubercle and is aggravated by exercise.

Management issues

Adolescents with chronic illness and disability have specific needs, they are best managed by physicians who have a special interest and expertise in this area.

- The medical transition from a pediatric to an adult system should be a gradual process, which *is planned ideally from the time of diagnosis.*

During this period adolescents need to be trained more about their illness and disability so that realistic goals are created as they strive towards achieving independence.

- Important issues regarding education, work experience, and career choices need to be addressed and the family should be encouraged to allow the adolescent to have control in such decision making.

The doctor/patient relationship, which was previously more oriented towards the parent, now needs to be oriented towards the adolescent.

This may involve allowing the adolescent to attend clinic appointments alone and respecting their confidentiality.

The adolescent should feel that their opinion has been taken into consideration when planning future treatments and they should also be held responsible for compliance with their medication.

Finally adolescents need to be encouraged to engage in social activities.

As more mature relationships develop, the sensitive issue of sexuality may need to be explored.

It is the role of the physician, as well as the other members of the multidisciplinary team, to work together with the family to ensure that the child progresses as smoothly as possible through adolescence.

- The transition should be planned and prepared so that the individual reaches early adulthood better equipped to deal with life's challenges and spared the suffering of adolescence tied with rheumatic disease.

Summary

Adolescence is a period of emotional and physical disturbance and a time when personal identity, need for independence, and peer relationships all evolve.

This transition from dependence to independence can be a difficult process for healthy teenagers.



Thank you